

**REMARKS**

Claims 1-17 are pending in the above-referenced patent application. Claims 1, 2, 9, 10, 12 and 17 have been amended. New claims 18-27 are added by this amendment. No new matter has been added. A check in the amount of \$210.00 is enclosed for payment of additional claims.

This Amendment is being filed within the Shortened Statutory period for response. An Extension of Time is therefore unnecessary.

Please charge any additional fees or credit any overpayment in connection with this response to our Deposit Account No. 19-1995. A duplicate copy of this letter is enclosed for that purpose.

Claims 1-17 were rejected under 35 USC 103(a) as being unpatentable over Lea (USPN 6,052,750) in view of Day et al. (hereinafter "Day"), USPN 5953526.

Applicant has carefully reviewed the Patent Office's reasons for rejection of the claims. The rejection of the claims is respectfully traversed for the following, and other, reasons. The claims include limitations not taught or suggested by the references alone, or in combination. No *prima facie* case of obviousness has been established. Re-examination and allowance of all claims are respectfully requested.

**Argument**

The present invention provides a method for performing a service on a home

network, by connecting home devices to the home network, wherein each device has an interface description. The interface description of each device is placed in a database by an agent in the home network. To command and control a first device, a second device accesses that database that is universally accessible to obtain the interface description of the first device, to send command and control data to the first device. In this manner the first and second devices autonomously provide a service for the user. (Claims 1, 9, 23).

By contrast Lea is directed to a method and system for ensuring future upgradability and expandability of devices in a home audio video network. The system generates a default control module (DCM) for a first device coupled to the network by using a second device coupled to the network. The default control module is configured to ensure at least a minimum degree of interoperability between the first device and the second device. The second device accesses the first device via the default control module, wherein the default control module enables the first device to respond to a default set of commands from the second device. When an updated control module for the first device is received, the default control module is replaced with the updated control module by unlinking the default control module and instead linking the updated control module. The second device subsequently accesses the first device via the updated control module, wherein the updated control module enables the first device to respond to an updated set of commands from the second device.

As such, in contrast to the presently claimed invention, Lea utilizes a device control module in each full node (FAV) for each device (IAV) in the network, wherein the DCM provides an API used to send control commands to that device. The FAV nodes act as control nodes and create a local representation of the IAV. As such, the FAV

builds a DCM for another device and the DCM exposes an interface that allows controlling that device.

Further, as the Office Action also states, Lea does not disclose a database of device interface descriptions according to the presently claimed invention. Further, Lea does not disclose placing the interface descriptions of the home network devices in the database for access by the home network devices to perform command and control therebetween. Nor does Lea disclose a process wherein to command and control a first device, a second device accesses that database to obtain the interface description of the first device, to send command and control data to the first device, whereby the first and second devices autonomously provide a service for the user. (Claims 1,9).

Day is directed to a computer controlled object oriented programming system for interfacing a plurality of programming objects with each other to provide combination objects combining programming functions of the objects. Each object includes predetermined interface data defining a required common interface with the other programming objects in a framework of events, attributes and methods for manipulating the attributes.

These objects may be combined with each other via their common interfaces to form combination objects and such combination objects may in turn be further combined with other objects and combination objects to form objects of increasing complexity which function as complete programs. There is provided a displayable output of documentation for the programming objects in which the basic documentation provided for an object oriented program by its developers may be added to or modified without the need to change the framework of the objects in the program.

To accomplish this, Day involves the combination of two documentation functions: (1) the basic documentation program which translates source code data within the object framework, and (2) an implementation translating a portion of the object source code data which is outside of the object framework. (Abstract).

The Office Action states that Day discloses a library that serves as the device interface description database as claimed by the present invention. It is respectfully submitted that Day does not mention a library or database. Nor does Day disclose a database including the device interface descriptions according to the claimed invention.

Day relates to a computer controlled object oriented programming system having means for interfacing a plurality of programming objects with each other to provide combination objects combining programming functions of said objects in which each object includes predetermined interface data defining a required common interface with the other programming objects (a plurality of these objects, each having a framework comprising a plurality of data attributes and a method of manipulating said data attributes). These objects may be combined with each other via their common interfaces to form combination objects and such combination objects may in turn be further combined with other objects and combination objects to form objects of increasing complexity which function as object oriented programs. This is directed to Java applications.

Day involves a documentation system for providing a displayable output of documentation for said programming objects in which the basic documentation provided for an object oriented program by its developers may be added to or modified

without the need to change the framework of the objects in the program. To accomplish this, Day involves the combination of two documentation means: 1) the basic documentation program object provided by the program developers which has the basic interface data defining said required common interface with means for storing said source code and means for translating a first portion of said source code (i.e., the portion selected by the developers for documentation) into an output in a language readable by a computer controlled display system to display said first portion of said source code in natural language documentation; and 2) means without said interface data defining said required common interface for translating a selected second portion of said source code (i.e., a portion not chosen for documentation by the original program developers) into an output in the same language as said language readable by said computer controlled display to display said second portion of said source code in the same natural language documentation complementing the documentation of said first portion. Day further provides means for obtaining from said source code identifiers for selecting said second portion of said source code. These identifiers are used to select this second portion from the machine code, into which the source code is compiled. (Col. 2, line 39 - Col. 3, line 36).

There is no mention of a database or library in Day, and no suggestion of using a database maintain device interface descriptions according to the present invention. Further, Day does not disclose placing device interface descriptions of the home network devices in the data base for access by the home network devices to perform command and control therebetween.

Further, one of ordinary skill in the art would not look to combine Lea and Day, nor is there a motivation or suggestion in either reference to do so, to solve device

command and control issues in a home network according to the present invention. Day's field of invention is directed to providing tools for an object oriented programming system with displayable natural language documentation through dual translation of program source code. Day provides software developers with a system for interfacing a plurality of programming objects wherein said programming objects may be initial programming objects and combinations of such initial programming objects combining functions of said initial objects. Each programming object respectively having a framework including data attributes, methods of manipulating such attributes and predetermined interface data defining a required common interface with the other programming objects. The system provides a displayable output of documentation for the programming objects. (Col. 8, lines 52-62).

Day provides a system for an object oriented environment that can be used for a Java environment in relation to the Internet, and has nothing to do with device command and control in a home network according to the present invention. Day addresses the need for programmers and users readily being able to display program documentation in a clear and comprehensive manner in natural language (i.e., JavaDoc which generates its documentation with an API). Day provides an addition for JavaDoc, addressing a limitation with the use of the JavaDoc document generator in that what will be included in the documentation is usually predetermined since all data to be used to provide documentation must be structured in the previously described API format. Thus, if others down the line from the prior developers believe that it would be advantageous to include additional comments, annotations or even active messages, the prior Java programming objects would have to be modified to include doc comments within the API framework. Day characterizes this as awkward and inefficient, and provides an alternative approach to enhancing the documentation without

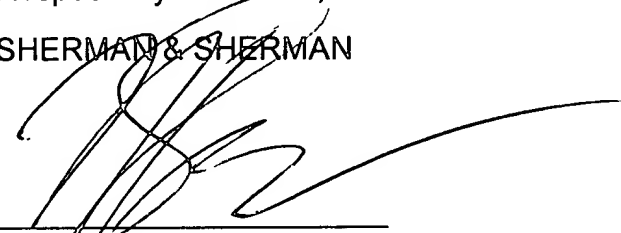
SAM1.0061

modifying existing Java objects. (Col. 1, line 64 - Col. 2, line 36). As such, Day is not related to the field of this invention, does not provide a database of library, and cannot be combined with Lea.

Therefore, it is respectfully submitted that the rejection of the independent claims 1 and 9, and claims dependent therefrom, should be withdrawn and all the claims allowed.

Respectfully submitted,

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August 2, 2002  
Date of Signature

VERSION WITH MARKINGS TO SHOW CHANGES MADE  
FOR  
CLAIMS

1. (Amended) A method for performing a service on a home network, the method comprising the steps of:
  - (a) connecting a first home device to the home network;
  - (b) connecting a second home device to the home network;
  - (c) providing a database including a plurality of application interface description data objects, each application interface description data object including information [in a structured format] for commanding and controlling of a home device by one or more other home devices connected to the network;
  - (d) the second home device accessing a first application interface description object for the first home device in the database;
  - (e) the first home device accessing a second application interface description object for the second home device in the database;
  - (f) sending control and command data from the first home device to the second home device utilizing said application interface description object for the second home device over the network; and
  - (g) sending control and command data from the second home device to the first home device utilizing said application interface description object for the first home device over the network[;whereby the first and second home devices perform said service].
  
2. (Amended) The method of claim 1 wherein [the structured format] at least one application interface description data object includes XML format.



9. (Amended) A network system for providing a service, comprising:
- (a) a physical layer, wherein the physical layer provides a communication medium [than] that can be used by devices to communicate with each other;
  - (b) first home device;
  - (c) a second home device;
  - (d) a database including a plurality of application interface description data objects, each application interface description data object including information [in a structured format] for commanding and controlling of a home device by one or more other devices connected to the network; wherein:
    - the second home device includes application control means for accessing a first application interface description object for the first home device in the database and sending control and command data from the second home device to the first home device utilizing said first application interface description object; and
    - the first home device includes application control means for accessing a second application interface description object for the second home device in the database and sending control and command data from the first home device to the second home device utilizing said second application interface description object[;
- whereby the first and second home devices perform said service].

10. (Amended) The network system of claim 9 wherein [the structured format] at least one application interface description data object includes XML format.

12. (Amended) The network system of claim 11 wherein:
- (i) the first home device stores first application interface description object therein;

- (ii) the second home device stores second application interface description object therein; and
- (iii) said database [base] device forms said data base by querying the first and second home devices to transfer said first and second application interface description objects, respectively, to the database device.

17. (Amended) The network system of claim [9] 16 wherein the structured format includes XML format.

**Please add the following new claims:**

18. The method of claim 1 wherein step (c) further includes the steps of providing an agent that creates the data base.

19. The method of claim 1 wherein step (c) further includes the steps of providing an agent that creates the data base by obtaining the application interface description data object of each device and storing it in the database.

20. The network system of claim 9 further including an agent that creates the data base.

21. The network system of claim 9 further including an agent that creates the data base by obtaining the application interface description data object of each device and storing it in the database.

22. In a network system for providing a service, the network system including

a physical layer, wherein the physical layer provides a communication medium that can be used by devices connected to the layer to communicate with each other, a controller comprising an agent that generates a database accessible by said devices, the database including a plurality of application interface description data objects, each application interface description data object including information for commanding and controlling of a home device by one or more other home devices connected to the network, whereby a first device can access an application interface description object for another device in the database and send control and command data to that other device utilizing said application interface description object, such that the two devices perform said service.

23. A method for performing a service on a home network, the method comprising the steps of:

- (a) connecting a first home device to the home network;
- (b) connecting a second home device to the home network;
- (c) providing a database including a plurality of application interface description data objects, each application interface description data object including information for commanding and controlling of a home device by one or more other home devices connected to the network;
- (d) the first home device accessing an application interface description object for the second home device in the database; and
- (e) the first device sending control and command data to the second home device utilizing said application interface description object for the second home device over the network, whereby the first and second home devices autonomously perform said service.

SAM1.0061

24. The method of claim 23 wherein step (c) includes connecting a database device to the network, wherein the database device stores said database.

25. The method of claim 24 wherein:

(i) the second home device stores its application interface data therein; and

(iii) step (c) includes an initial step of forming said database by steps including querying the second home device to transfer said application interface data for the second home devices to the database device.

26. The method of claim 23 wherein step (d) includes providing the application interface description object for the second home device from the database to the first home device over the network.

27. The method of claim 23 further comprising the steps of connecting three or more home devices to the network, wherein at least one home device accesses the database to query the application interface description objects of a plurality of home devices for sending command and control data to the plurality of home devices over the network.